**Course: Math 8 CCSS Standard Number(s): 8.EE.4 Day: 21**

**Unit # and Title: Unit One – Expressions and the Number System Block(s)/Period(s): 1 2 3 4 5 6**

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| **Unit Essential Question(s):** | **When would you use the properties of integer exponents?** | | |
| **Learning Target(s)**  **“I can statements”** | **I can add or subtract two numbers written in scientific notation.** | | |
| **Essential Vocabulary** | **exponent**  **integer**  **laws of exponents**  **negative**  **positive**  **expression**  **power of ten**  **standard form**  **decimal** | | |
| **Resources and Materials** | **Teacher** | | **Student** |
| **Power point**  **“Card Sort”**  **Glencoe C3 Lessons:**  **On Core Lessons: 1-3**  **On Core Lessons: 1-2**  **Math’scool Lesson** [5.7](https://gems.gcsnc.com/lvcontentitems_23/lvContentItems_23/DispForm.aspx?ID=1670)  **Destination Math:** | | **Tool kit**  **Poster paper and markers** |
| **8 Mathematical Practices:** | | | |
| 1. Make sense of problems and persevere in solving them.  2. Reason abstractly and quantitatively.  3. Construct viable arguments and critique the reasoning of others.  4. Model with mathematics. | | 5. Use appropriate tools strategically.  6. Attend to precision.  7. Look for and make use of structure.  8. Look for and express regularity in repeated reasoning. | |
| **Activating Strategy**  **(Opening Activity)** | **Students will complete WARM UP questions displayed in power point, on the screen. (review questions relating to previous lessons)** | | |
| **Cognitive Teaching Strategies**  **Me/We/Few/You**  **(TIP-Teacher input**  **SAP-Student actively participates**  **GP – Guided Practice**  **IP-Independent Practice)** | **Students will break up into small groups, and complete a poster describing one of the exponent rules with examples.**   1. **Power to One property** 2. **Zero Exponent** 3. **Negative Exponent** 4. **Power to power** 5. **Same base multiplication/division**   **Students will be given an addition and subtraction problem in scientific notation format, to work out in pairs.**  In July 2010 there were approximately 500 million facebook users. In July 2011 there were approximately 750 million facebook users. How many more users were there in 2011. Write your answer in scientific notation.  *Solution:* Subtract the two numbers: 750,000,000 - 500,000,000 = 250,000,000 2.5 x 108  **Students will complete OPEN NOTES from the teacher generated power point, containing instruction on how to add and subtract numbers in Scientific Notation format, including vocabulary and examples and guided practice.**  **Workbook page 11**  **Students complete independence practice in small groups or pairs.**  **Students will be asked to explain their answers to the rest of the class.** | | |
| **Summarizing Strategy**  **(Closing Activity)** | **Student will complete a white board review, answering questions presented on the screen from teacher’s power point.** | | |
| **Assessment/Homework** |  | | |
| **Extending/Refining** |  | | |